

Name: Jerrold Arthur Greiff
Address: Central Trading Agency
PMB 434
6830 Bothell Way NE
Kenmore WA 98028
Citizenship: USA

Title of Invention: MicroTracker Mouse Pad

Field of Endeavor

Class D14, Subclass #458: A flat surface that a mouse type is rolled against, i.e., a mouse pad.

Specifications

A mouse pad is a flat, horizontal surface used either for rolling a ball mouse on or sliding an optical mouse on. Although a mouse can be operated on any flat surface, it is commonly used on a mouse pad, as they are supposed to provide better traction and a smooth lint-free surface over which to move.

Dirt naturally gets deposited on the surface of the mouse pad from the environment and the operation of the user. The problem with mouse pads is that the ball picks up these small dirt particles from the top surface of the mouse pad, and deposits them on the rollers inside the mouse. The ball needs to be composed of a rubber material to increase traction, which has the side-effect of the ball picking up dirt. As the ball glides over the surface, gradually so much dirt is transferred to the rollers that traction is reduced, creating erratic movements and causing the mouse to "skip" or "freeze". This dramatically reduces the productivity of the computer user. The solution to this has been to disassemble and clean the part of the mouse where the trackball is housed or to replace the mouse entirely.

Attempts have been made in the past to produce a surface for a mouse pad that helps to reduce the amount of dirt and debris that gets transferred from the surface of the mouse pad to the inside of the mouse ball mechanism, as the mouse ball rides over the surface of the mouse pad. These attempts have had various levels of success, depending on the materials used and/or the design of the surface structure. None of these attempts have yet to completely solve the problem. The reason is that none of the materials used have been able to completely capture and hold the dirt and prevent it from eventually being transferred to the trackball and the mouse.

The MicroTracker Mouse Pad provides a new technology of utilizing the proper surface material for the mouse pad, virtually eliminating dirt from entering the trackball and interfering with the operation of the mouse. The MicroTracker Mouse Pad accomplishes this by utilizing a surface material called microfiber.

Page 2 – Specifications – MicroTracker Mouse Pad

In order to be called “microfiber”, the fiber must be less than one denier. “Denier” is the term used to define the diameter or fineness of a continuous or filament fiber such as silk or man-made fibers. Denier is defined as the weight in grams of a 9000-meter length of fiber or yarn - the higher the number, the thicker the yarn. The majority of microfibers used today are between 0.1 and 0.3 denier, only 1/100 the size of a strand of hair.

The microfiber itself is cross-sectioned and can pick up and trap small particles of dirt within its microscopic grooves. Microfiber has been used for the past decade worldwide as a cleaning cloth due to its remarkable properties of being able to trap and dirt and dust particles and the large internal surface area of the cloth, allowing it to hold and absorb up to seven times its weight in liquids and dirt.

The MicroTracker Mouse Pad is a microfiber cleaning cloth adhered to a rubber base, making it a microfiber high-performance cleaning cloth mouse pad.

The MicroTracker Mouse Pad collects, traps and holds dust and dirt, preventing it from sticking on to the mouse trackball and entering the mouse. The wedge shape microfibers actually pull dirt into the matrix of the cloth, sweeping it internally between the microfibers. Microfiber are most commonly manufactured with a blend of polyester and nylon, however microfibers can be manufactured with virtually any type of fiber. It is important to note that polyester in and of itself does not possess any of the cleaning abilities of microfiber cloth. It is only through the process of extruding polyester and/or other materials into microfilaments does the polyester or other material exhibit the properties of high-performance cleaning cloths.